GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

WYOMING STATE HIGHWAY PATROL, GAME & FISH WARDEN AND CRIMINAL INVESTIGATOR RETIREMENT FUND

ACTUARIAL VALUATION REPORT

FOR THE YEAR BEGINNING JANUARY 1, 2014

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April 29, 2014

Board of Trustees
Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement Fund
6101 Yellowstone Road
Suite 500
Cheyenne, WY 82002

Dear Board of Trustees:

Subject: Actuarial Valuation as of January 1, 2014

We are pleased to present the report of the actuarial valuation of the Wyoming State Highway Patrol, Game & Fish Warden and Criminal Investigator Retirement Fund ("the Fund") for the plan year commencing January 1, 2014. This report describes the current actuarial condition of the Fund, determines the calculated employer contribution rate (the actuarially required rate), and analyzes changes in this contribution rate. Valuations are prepared annually, as of January 1, the first day of the Fund's plan year.

Financing objectives and funding policy

The employer and employee contribution rates are specified in statute. The purpose of this actuarial valuation is to determine whether or not this statutory contribution is sufficient to meet the obligations of the Fund.

Progress toward realization of financing objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. The funded ratio, based upon the assumption of no further cost-of-living adjustment increases, as of January 1, 2014 is 77.44%. This funded ratio is based upon the assumption that no future cost-of-living increases will be made. As of January 1, 2013, this funded ratio, based on the assumption of no future COLAs and the actuarial value of assets, was 77.09%. On a market value of assets basis, the funded ratio increased from 79.17% as of January 1, 2013 to 80.91% as of January 1, 2014.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on January 1, 2014. W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change. There were no benefit changes since the prior valuation.

The benefit provisions are summarized in Appendix B of the report.

Assumptions and methods

Actuarial assumptions and methods are set by the Board, based upon recommendations made by the plan's actuary. The current assumptions used in the valuation were adopted by the Board effective February 22, 2013. This is the first valuation using the new assumptions.

The results of the actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations presented in the report are intended to provide information for rational decision making.

The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in Governmental Accounting Standards Board (GASB) Statement Number 25.

All assumptions and methods are described in Appendix A of the report.

Data

Member data for retired, active and inactive members was supplied as of January 1, 2014 by the Fund's staff. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data.

Asset and financial information as of January 1, 2014 was prepared by Wyoming Retirement System and is the responsibility of management. McGee, Hearne & Paiz, LLP provided us the asset and financial information and will opine on Wyoming Retirement System's statements.

Plan experience

As part of each valuation, we examine the Fund's experience relative to the assumptions. Experience in a given year will deviate from the assumptions and a gain occurs if the liabilities grow slower than the assumption set anticipates, and a loss occurs if the liabilities grow faster. This past fiscal year the Fund had a total experience gain of approximately $5.74 million primarily due to the recognition of investment gains. The aggregate results of these analyses are disclosed in Tables 4 & 5 under Section III of the report.

Legislated contribution rate increases

Per House Enrolled Act No. 103 from the 2013 Wyoming budget session and House Enrolled Act No. 11 from the 2014 budget session, the following contribution increases are expected:

Employee Contribution
- Effective July 1, 2014: Increase from 13.54% of pay to 14.56% of pay

Employer Contribution
- Effective July 1, 2014: Increase from 12.96% of pay to 13.86% of pay
- Effective July 1, 2015: Increase from 13.86% of pay to 14.88% of pay

Effective September 1, 2013, the employee contribution rate increased from 12.64% of pay to 13.54%.

Actuarial certification

All of the tables contained in this actuarial valuation report were prepared by Gabriel, Roeder, Smith & Company. Historical information for years prior to 2010 was prepared by the prior actuarial firm and was not subjected to our actuarial review. We certify that the information presented herein is accurate and fairly portrays the actuarial position of the Fund as of January 1, 2014.

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries and consultants. Mark Randall and Leslie Thompson are Enrolled Actuaries, all of the undersigned are members of the American Academy of Actuaries, and all meet the Qualification Standards of the American Academy of Actuaries. Finally, all of the undersigned are experienced in performing valuations for large public retirement systems.

Respectfully submitted,
Gabriel, Roeder, Smith & Company

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SECTION I

EXECUTIVE SUMMARY

Executive Summary

Item	January 1, 2014 No COLA	January 1, 2014 No COLA	January 1, 2013 No COLA
	New Assumptions	*Old Assumptions*	
1. Contributions:			
a. Total normal cost	23.20%	19.57%	19.67%
b. Employee contributions**	(13.54%)	(13.54%)	(12.64%)
c. Other expected contributions*	(0.34%)	(0.34%)	(0.72%)
d. Net employer normal cost	9.32%	5.69%	6.31%
e. Amortization payment	7.98%	6.26%	6.92%
f. Administrative expenses	0.46%	0.46%	0.35%
g. Required contribution	17.76%	12.41%	13.58%
h. Statutory**	(12.96%)	(12.96%)	(12.96%)
i. Shortfall/(surplus)**	4.80%	(0.55%)	0.62%
2. Funding Elements:			
a. Market value of assets (MVA)	$121,363,344	$121,363,344	$108,926,527
b. Actuarial value of assets (AVA)	$116,151,164	$116,151,164	$106,067,552
c. Actuarial accrued liability (AAL)	$149,989,392	$142,710,979	$137,580,636
d. Unfunded/(overfunded) actuarial accrued liability (UAAL)	$33,838,228	$26,559,815	$31,513,084
3. GASB 25/27 Elements:			
a. Annual required contribution	$4,037,681	$2,822,199	$3,316,553
b. Actual contributions	N/A	N/A	3,352,871
i. Employer	*N/A*	*N/A*	*2,997,720*
ii. Other	*N/A*	*N/A*	*355,151*
c. Percentage contributed	N/A	N/A	101.10%
d. Funded ratio on an actuarial basis (AVA/AAL)	77.44%	81.39%	77.09%
e. Funded ratio on an market basis (MVA/AAL)	80.91%	85.04%	79.17%
f. Projected payroll	$22,744,938	$22,744,938	$24,424,919

* As of January 1, 2014, $78,343 comes from a contribution expected from Highway Patrol or Game & Fish Commission funds for the current year to fund the past cost-of-living improvements to retired members paid under Section 9-3-610(b). As of January 1, 2014, service purchases are excluded from expected contributions.

** Effective September 1, 2013, the employee contribution rate increased from 12.64% to 13.54% and will increase again to 14.56% effective July 1, 2014. Effective July 1, 2014 the employer (statutory) rate will increase from 12.96% to 13.86% of pay and will increase again to 14.88% effective July 1, 2015. Based on the timing of increase effective during the upcoming year, the one-year shortfall would decrease from 4.80% to 3.84% of pay.

SECTION II

DISCUSSION

Contribution Requirements

- Exhibits throughout this report are based primarily, unless stated otherwise, on the assumption of no future cost-of-living adjustments (COLAs)
- W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change. The actuarial value funded ratio is 77.44% and the market value funded ratio is 80.91%.
- Recent legislation increasing contribution rates was passed.
  - Per 2013 House Enrolled Act No 103:
    - Employee rate increased from 12.64% to 13.54% of pay, effective September 1, 2013
    - Employer rate increases from 12.96% to 13.86 of pay, effective September 1, 2014
  - Per 2014 House Enrolled Act No 11:
    - Change effective date of 2013 HEA No 103 employer rate increase to July 1, 2014
    - Employee rate increases from 13.54% to 14.56% of pay, effective July 1, 2014
    - Employer rate increases from 13.86% to 14.88% of pay, effective July 1, 2015
- There were no changes to the benefit provisions reflected in this actuarial valuation.
- Actuarial assumptions and methods were updated since the prior valuation to those adopted February 22, 2013 by the Board. In particular, the assumed rate of return was lowered from 8.00% to 7.75%. All of the changes to the demographic and economic assumptions are detailed in Appendix A.
- The amortization payment is based upon the following assumptions:
  - 30-year open funding period
  - Amortization payment amounts are calculated in such a way that they will increase as a level percentage of payroll
  - Total payroll increases are assumed at 4.25% per year
  - Future growth in the number of active members is not reflected in the annual valuation
- Analysis of the change in contribution rates is shown in Table 5 under Section III of the report
- The calculated funding period assuming the current statutory contribution of 12.96% of pay is infinite, but does not reflect recent legislation to increase employee and statutory contributions after the valuation date.

Calculation of Contribution Rates

The funds available to pay benefits come from two sources, contributions and investment income on those contributions (the majority of the funds available to pay benefits typically come from investment income). The Fund receives contributions from two sources, employer contributions and member contributions which are specified in statute and determined as a percentage of pay. As shown in Table 1 under Section III of the report, the calculated employer contribution rate has three components:

- The normal cost percentage (NC%)
- The amortization percentage (UAAL%)
- The administrative expenses

The NC% is the theoretical amount which would be required to pay the members' benefits if this amount had been contributed from each member's entry date and if the fund's experience exactly followed the actuarial assumptions. The NC% is shown in Table 3 under Section III of the report.

The actuarial accrued liability (AAL) is the difference between (i) the actuarial present value of all future benefits for all current participants of the fund, including active, inactive and retired members, and (ii) the actuarial present value of future normal costs. Thus the AAL represents the liability associated with past years. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and the actuarial value of assets (AVA). It is the shortfall/excess between the liability associated with prior years (the AAL) and the assets actually accumulated (the AVA). This shortfall/excess can arise from several sources, including actuarial gains and losses which are caused by differences between actual experience and the plan's assumptions, changes to the plan's actuarial assumptions, and amendments to the benefit provisions.

The UAAL% is the amount required to fund this difference. It is the amount, expressed as a level percentage of payroll, necessary to amortize the UAAL. This amortization is over a period of 30 years. The Executive Summary shows the UAAL%, called Amortization Payment, compared to that of last year.

Administrative expenses are the average of the actual expenses for the prior two years, with each year projected at 6.50% to the valuation date.

The calculated rate of 17.76% is used in determining the contributions necessary to meet the GASB Annual Required Contribution (ARC) for the twelve-month period beginning January 1, 2014. The employer contribution is 13.86% as of July 1, 2014. Therefore, a contribution shortfall (when comparing the statutory contributions against the ARC) will occur for 2014. This is detailed in the Executive Summary.

Financial Data and Experience

As of January 1, 2014, the Fund has a total market value of approximately $121 million. Financial information was received from McGee, Hearne & Paiz, LLP.

Table 7 under Section III of the report shows a reconciliation of the market values between the beginning and end of 2013.

During 2013, the total investment return on the market value of assets (MVA), as reported by NEPC, LLC, was 13.53%, as shown in Table 10 under Section III of the report.

In determining the contribution rates and funded status of the Fund, an actuarial value of assets (AVA) is used rather than the market value of assets. The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses. An adjustment is made if the actuarial value is not within 20% of the Market Value. For any year following a year in which the 20% of market value adjustment was applied, the actuarial value is determined as if the adjustment was not applied in the previous year.

The development of the AVA is shown in Table 9 under Section III of the report. The AVA is $116 million. The AVA is 95.71% of the MVA, compared to 97.38% last year. The difference between the AVA and the MVA is the deferred gains and losses. As of January 1, 2013, the total deferred gain was $2.9 million. As of January 1, 2014, the total deferred gain was $ 5.2 million.

In addition to the market return, Table 10 also shows the return on the actuarial value of assets for the Fund. For 2013, this return was 11.51%. Because this is greater than the prior assumed 8.00% investment return, an actuarial gain occurred decreasing the unfunded actuarial accrued liabilities of the Fund by $3.7 million.

Member Data

Member data as of January 1, 2014, was supplied electronically by the Fund's staff. While we did not audit this data, we did perform various tests to ensure that it was internally consistent, consistent with the prior year's data, and was reasonable overall.

Table 15 under Section III of the report shows the number of members by category (active, inactive, retired, etc.) along with member statistics. Tables 16 through 28 show summaries of certain historical data and include membership statistics.

Total active member payroll decreased 6.88% last year, compared with a 0.14% increase the prior year.

There were eleven new retirements this year with an average final average salary at retirement of $74,889.

Of the 303 active participants, 74 are eligible or will become eligible for retirement in 2014.

Variation in the growth of payroll is significant because the methodology used in the valuation to amortize the unfunded actuarial accrued liability assumes a growing payroll into the future. Our current assumption is a 4.25% annual growth rate. If the payroll does not grow at the assumed 4.25% per year average, then the current amortization payments may be understated and the funding position of the Fund will not strengthen as assumed over time. Higher than expected payroll growth, however, has the opposite effect of this and the funded position of the Fund should trend to 100%. Table 5 under Section III of the report shows, for the past year, payroll for the plan increased less than expected, so the effect is an increase in the calculated contribution rate of 0.86% of payroll.

One reason payroll increased less than expected is that the salary, for continuing active participants, increased less than expected. This represented a gain to the Plan, as shown in Table 4 under Section III of the report.

Benefit Provisions

Appendix B of our Report includes a more detailed summary of the benefit provisions for the Fund. A brief summary is as follows:

– *Normal Retirement Eligibility*

  - Age 50 with at least six years of service

– *Normal Retirement Benefit*

  - 2.50% of final average salary not to exceed 75.0% of final average salary

– *Normal Form of Payment* is a 50% Joint & Survivor Annuity for married retirees and Life Annuity for unmarried retirees

– *Employee Contributions* are required

  - 13.54% of payroll, increasing to 14.56 on July 1, 2014

– *Post-retirement Cost-of-Living Adjustments (COLAs)*

  - W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change.

There have been no changes to plan provisions since the prior valuation.

Actuarial Methods and Assumptions

Appendix A of the report includes a summary of the actuarial assumptions and methods used in this valuation. A few highlights are listed as follows:

- Costs are determined using the Entry Age Normal actuarial cost method, calculated as a level percentage of payroll.
- The unfunded actuarial accrued liability is amortized over 30 years.
- The assumed annual investment return rate is 7.75%, with assumed inflation of 3.25%.
- Payroll is assumed to increase at 4.25% per year.
- Inactive vested participants are assumed to retire at age 50 or the valuation date if over age 50.
- No benefit data is available for members entitled to deferred benefits. The present value of benefits expected to be paid to vested inactive non-retired members is approximated using the data provided.

Based on the current mortality tables projected to 2018 to approximate annual changes due to the generational assumption (instead of full generational projections), the average future lifetime for current pensioners is 18.4 years.

Actuarial assumptions and methods were updated since the prior valuation to those adopted February 22, 2013 by the Board.

GASB and Funding Progress

Governmental Accounting Standards Board Statement Number 25 (GASB 25) contains certain accounting requirements for the Fund. In particular, it requires the inclusion of two special schedules in the Fund's annual report:

1. Schedule of Funding Progress

2. Schedule of Employer Contributions

Information needed to prepare the Schedule of Funding Progress is included in Table 12 under Section III of the report.

Governmental Accounting Standards Board Statement Number 27 (GASB 27) also requires that plans calculate an Annual Required Contribution (ARC), and, if actual contributions received are less than the ARC, this must be disclosed.

Under GASB 27, the ARC must be calculated in accordance with certain parameters. In particular, it must include a payment to amortize the unfunded actuarial accrued liability (UAAL). This amortization payment must be computed using a funding period no greater than 30 years. Further, the amortization payment included in the ARC may be computed as a level dollar amount, or it may be computed as an amount which increases with payroll (level percentage of payroll). However, if payments are computed on a level percentage of payroll approach, the payroll growth assumption may not anticipate future membership growth.

Since the recommended employer contribution rate of 17.76% is computed as a level percentage of payroll using an amortization period of 30 years from the valuation date, the calculated rate meets the definition of an acceptable ARC.

SECTION III

SUPPORTING EXHIBITS

Calculation of Annual Required Contribution Rate

(Assumes No Future Cost-Of-Living Increases)

Item			January 1, 2014	January 1, 2013
1.	Projected valuation payroll		$22,744,938	$24,424,919
2.	Present value of future pay		$215,775,081	$207,874,636
3.	Employer normal cost rate*		9.32%	6.31%
4.	Actuarial accrued liability for active members			
	a.	Present value of future benefits for active members	$111,581,711	$98,358,825
	b.	Less: present value of future employer normal costs	(19,823,844)	(13,647,178)
	c.	Less: present value of future employee contributions*	(29,215,947)	(26,275,354)
	d.	Actuarial accrued liability	$62,541,920	$58,436,293
5.	Total actuarial accrued liability for:			
	a.	Retirees and beneficiaries	$74,210,976	$69,711,687
	b.	Disabled members	9,592,637	7,438,889
	c.	Inactive members	3,643,861	1,993,766
	d.	Active members (Item 4d)	62,541,920	58,436,293
	e.	Total	$149,989,393	$137,580,636
6.	Actuarial value of assets (Table 11)		$116,151,164	$106,067,552
7.	Unfunded actuarial accrued liability (UAAL) (Item 5e - Item 6)		$33,838,229	$31,513,084
8.	Funding period		30 years	30 years
9.	Assumed payroll growth rate		4.25%	4.50%
10.	Employer contribution requirement			
	a.	UAAL amortization payment as % of pay	7.98%	6.92%
	b.	Employer normal cost	9.32%	6.31%
	c.	Administrative expense	0.46%	0.35%
	d.	Contribution requirement (a + b + c)	17.76%	13.58%

* Calculated as of January 1, 2013 assuming an employee contribution rate of 12.64% of pay and as of January 1, 2014 assuming an employee contribution rate of 13.54% of pay.

Cost Breakdown

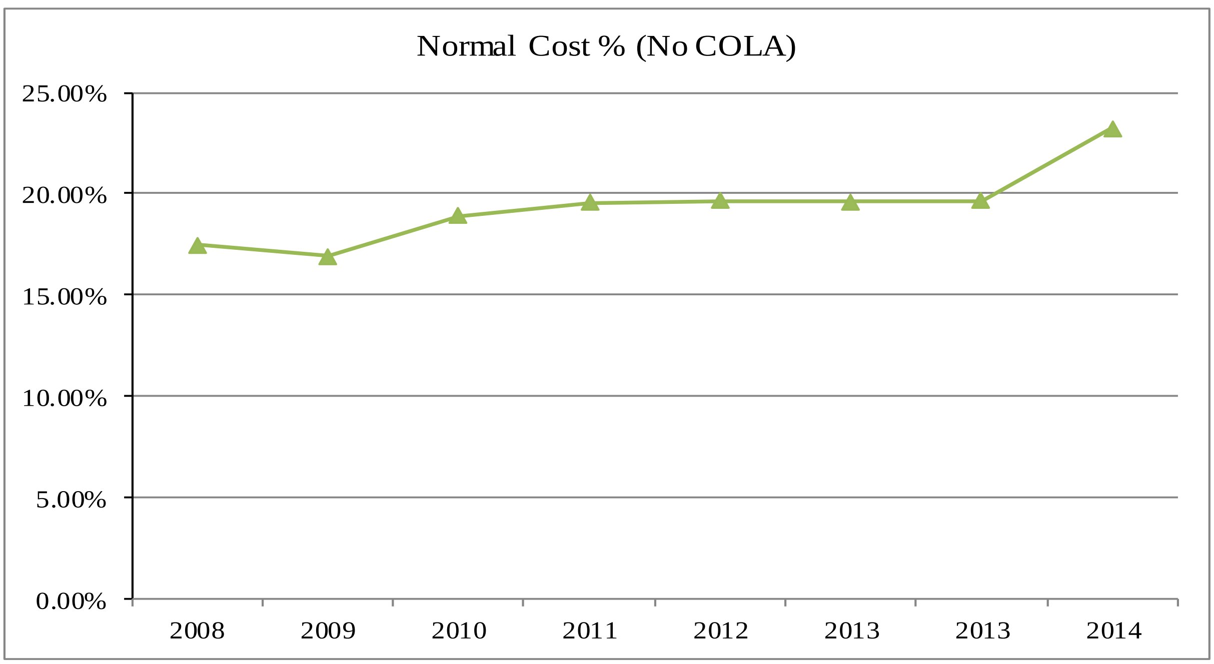
(Assumes No Future Cost-Of-Living Increases)

Item	Present Value of Future Normal Costs (1)	Actuarial Accrued Liabilities (2)	Total Present Value of Benefits (3) = (1) + (2)
Age and service allowances based on total service and disability benefits likely to be rendered by present active members	$39,749,767	$60,990,519	$100,740,286
Death-in-service benefits likely to be paid on behalf of present active members (employer financed portion)	1,106,687	615,932	1,722,619
Separation benefits (refunds of contributions and deferred allowances) likely to be paid to present active members	8,183,337	935,469	9,118,806
Benefits likely to be paid to vested inactive members	0	3,161,863	3,161,863
Benefits to be paid to members due refunds	0	481,998	481,998
Benefits to be paid to current retirees, disabled members, beneficiaries, and future beneficiaries of current retirees	0	83,803,612	83,803,612
Total	$49,039,791	$149,989,392	$199,029,183
Actuarial value of assets	0	116,151,164	116,151,164
Liabilities to be covered by future contributions	$49,039,791	$33,838,228	$82,878,019

History of Total Normal Cost

(Assumes No Future Cost-Of-Living Increases)

Fiscal Year Ending December 31	Normal Cost (as Percent of Payroll)
(1)	(2)
2007	17.45%
2008	16.93%
2009	18.92%
2010	19.57%
2011	19.63%
2012	19.59%
2013	19.67%
2014	23.20%



Calculation of Total Actuarial Gain/(Loss)

(Assumes No Future Cost-Of-Living Increases)

Item	January 1, 2014
1. Derivation of experience gain/(loss)	
a. Unfunded actuarial accrued liability (UAAL) - previous valuation	$31,513,084
b. Normal cost (NC) for fiscal year ending 12/31/2013	4,804,273
c. Actual adminstrative expenses for fiscal year ending 12/31/2013	106,839
d. Actuarially determined contribution for fiscal year ending 12/31/2013	6,579,723
e. Interest accrual*:	
(i) For whole year on (a)	2,521,047
(ii) For half year on (b) + (c) - (d)	(66,744)
(iii) Total interest: (e)(i) + (e)(ii)	2,454,303
f. Change in UAAL due to plan changes	-
g. Change in UAAL due to assumption change	7,278,413
h. Expected UAAL current year: (a) + (b) + (c) - (d) + (e)(iii) + (f) + (g)	39,577,189
i. Actual UAAL current year	33,838,229
j. Experience gain/(loss): (h) - (i)	5,738,960
k. Experience gain/(loss) as a % of actuarial accrued liability	3.83%
2. Approximate portion of gain/(loss) due to investments* (at actuarial value)	$3,685,308
3. Approximate portion of gain/(loss) due to contributions* higher or lower than expected	($260,800)
4. Approximate portion of gain/(loss) due to liabilities: (1)(j) - (2) - (3)	$2,314,452
a. Age & service retirements	327,097
b. Disability retirements	(921,908)
c. Death-in-service	86,791
d. Withdrawal from employment	256,603
e. Rehires	(29,889)
f. Pay increases less than expected	2,787,859
g. Death after retirement	113,775
h. Other	(305,876)
i. Other as a % of actuarial accrued liability	-0.20%

* The interest accrual of 8.00% is used for the period January 1, 2013 through December 31, 2013. Effective January 1, 2014, the assumed interest rate is 7.75%.

Change in Calculated Contribution Rate Since the Prior Valuation

(Assumes No Future Cost-Of-Living Increases)

Item	January 1, 2014
1. Calculated contribution rate as of January 1, 2013	13.58%
2. Change in contribution rate during year	
a. Change in employer normal cost	3.01%
b. Assumption changes	1.81%
c. Recognition of prior asset losses (gains)	-0.59%
d. Actuarial (gain) loss from current year asset performance	-0.28%
e. Actuarial (gain) loss from liability sources and adminstrative expenses	-0.55%
f. Difference between contributions made and required contributions	0.06%
g. Effect of payroll growing (faster)/slower than assumption	0.86%
h. Open amortization period reset to 30 years	-0.14%
i. Other changes	0.01%
j. Total change	4.18%
3. Calculated contribution rate as of January 1, 2014	17.76%

Statement of Plan Net Assets

Assets at Market Value		
Item	**FYE 2013**	**FYE 2012**
1. Cash and cash equivalents (operating cash)	$3,956,371	$5,042,062
2. Receivables		
a. Employee contributions	$252,310	$246,962
b. Employer contributions	241,503	253,214
c. Securities sold	533,939	276,832
d. Accrued interest and dividends	382,860	274,056
e. Currency contract receivable	15,925,597	2,600,908
f. Other	0	0
g. Rebate and fee income receivable	0	0
h. Total receivables	$17,336,209	$3,651,972
3. Investments, at fair value	$131,378,167	$114,279,356
4. Liabilities		
a. Benefits and refunds payable	$0	$0
b. Accrued payroll taxes and deductions	0	0
c. Securities purchased	(1,612,711)	(1,864,094)
d. Administrative and consulting fees payable	(204,959)	(124,721)
e. Currency contract payable	(16,006,646)	(2,594,800)
f. Securities lending collateral	(13,483,087)	(9,463,248)
g. Total liabilities	($31,307,403)	($14,046,863)
5. Total market value of assets available for benefits	$121,363,344	$108,926,527

Reconciliation of Plan Net Assets

Assets at Market Value		
Item	**FYE 2013**	**FYE 2012**
A. Market value of assets at beginning of year	$108,926,527	$97,889,071
B. Contribution income:		
1. Contributions		
a. Employee	$2,976,082	$2,726,295
b. Employer	2,997,720	2,798,865
c. Other*	355,151	177,033
d. Total	$6,328,953	$5,702,193
2. Investment income		
a. Interest, dividends, and other income	$2,863,895	$2,751,383
b. Write-up of assets	12,203,508	10,921,500
c. Investment expenses	(691,832)	(458,148)
d. Net investment income	$14,375,571	$13,214,735
3. Securities lending		
a. Gross income	$80,079	$84,321
b. Deductions	(12,006)	(12,643)
c. Net investment income	$68,073	$71,678
4. Benefits and refunds		
a. Refunds	($335,592)	($286,976)
b. Regular monthly benefits	(7,893,349)	(7,579,414)
c. Total	($8,228,941)	($7,866,390)
5. Administrative and miscellaneous expenses	($106,839)	($84,760)
C. Market value of assets at end of year	$121,363,344	$108,926,527

* For Fiscal Year Ending 2013, $78,343 comes from a contribution expected from Highway Patrol or Game & Fish Commission funds for the current year to fund the past cost-of-living improvements to retired members paid under Section 9-3-610(b). The remaining $276,808 comes from service purchases.

Progress of Fund Through December 31, 2013

Plan Year Ending December 31	Employer Contributions*	Employee Contributions	Administrative Expenses	Net Investment Income**	Benefit Payments	Transfers	Actuarial Value of Assets
Total	$45,009,029	$40,106,067	($718,034)	$115,899,226	($99,114,333)	-	
1986	-	-	-	-	-	-	$14,969,209
1987	$954,283	$879,791	-	$1,335,359	($1,117,137)	-	17,021,505
1988	1,031,683	599,492	-	1,407,287	(1,125,353)	-	18,934,614
1989	663,409	643,827	-	2,021,576	(1,149,984)	-	21,113,442
1990	869,103	845,322	-	1,618,799	(1,221,774)	-	23,224,892
1991	920,907	896,033	-	2,411,241	(1,396,348)	-	26,056,725
1992	861,135	837,862	-	2,856,721	(1,363,781)	-	29,248,662
1993	990,413	1,028,810	($11,664)	3,141,296	(1,529,363)	-	32,868,154
1994	943,733	917,798	(24,786)	2,287,536	(1,792,594)	-	35,199,841
1995	1,142,039	951,127	(35,747)	3,871,480	(1,936,127)	-	39,192,613
1996	1,357,890	717,400	(26,244)	3,922,683	(2,268,479)	-	42,895,863
1997	1,281,287	1,081,347	(26,244)	5,310,084	(2,538,318)	-	48,004,019
1998	1,234,083	1,038,101	(26,244)	7,274,604	(2,611,908)	-	54,912,655
1999	1,319,421	1,077,725	(21,226)	8,444,608	(2,977,982)	-	62,755,201
2000	1,389,524	1,182,925	(8,713)	10,158,814	(2,883,760)	-	72,593,991
2001	1,572,526	1,374,139	(14,566)	7,560,569	(3,134,813)	-	79,951,846
2002	1,700,597	1,513,552	(16,782)	(1,094,717)	(3,336,078)	-	78,718,418
2003	1,746,788	1,620,468	(13,121)	6,670,496	(4,025,013)	-	84,718,036
2004	1,796,863	1,595,836	(16,470)	2,497,564	(4,216,369)	-	86,375,460
2005	1,890,808	1,673,570	(26,998)	4,536,171	(4,671,902)	-	89,777,109
2006	2,052,640	1,815,222	(24,618)	7,662,836	(5,488,005)	-	95,795,184
2007	2,258,769	2,085,402	(28,543)	10,815,958	(5,615,684)	-	105,311,086
2008	2,549,234	2,347,711	(39,582)	(13,333,539)	(5,910,493)	-	90,924,417
2009	2,657,556	2,469,358	(43,053)	16,027,603	(6,418,508)	-	105,617,373
2010	2,696,312	2,525,810	(48,843)	3,006,266	(6,797,462)	-	106,999,456
2011	2,799,257	2,685,062	(72,991)	1,198,878	(7,491,767)	-	106,117,895
2012	2,975,898	2,726,295	(84,760)	2,198,614	(7,866,390)	-	106,067,552
2013	3,352,871	2,976,082	(106,839)	12,090,439	(8,228,941)	-	116,151,164

* Includes other funding sources
** Net of investment expenses

Development of Actuarial Value of Assets

Item	FYE 2013	FYE 2012
1. Actuarial value of assets, beginning of year (before corridor)	$106,067,552	$106,117,895
2. Market value, end of year	$121,363,344	$108,926,527
3. Market value, beginning of year	$108,926,527	$97,889,071
4. Non-investment/administrative net cash flow:		
a. Employee contributions	$2,976,082	$2,726,295
b. Employer contributions	2,997,720	2,798,865
c. Other contributions	355,151	177,033
d. Refund of employee accounts	(335,592)	(286,976)
e. Retirement benefits	(7,893,349)	(7,579,414)
f. Administrative Expenses	(106,839)	(84,760)
g. Total net cash flow: [sum of (4a) through (4f)]	($2,006,827)	($2,248,957)
5. Investments and securities lending:		
a. Interest and dividends on investments	$2,863,895	$2,751,383
b. Gross income from securities lending	80,079	84,321
c. Fees and expenses	(703,838)	(470,791)
d. Total net income: [sum of (5a) through (5c)]	$2,240,136	$2,364,913
6. Investment income:		
a. Actual market return: (2) - (3) - (4g) - (5d)	$12,203,508	$10,921,500
b. Assumed rate of return**	8.00%	8.00%
c. Assumed amount of return	6,395,257	5,377,985
d. Amount subject to phase-in: (6a) - (6c)	$5,808,251	$5,543,515
7. Phase-in recognition of investment income:		
a. Current year: 0.20 * (6d)	$1,161,650	$1,108,703
b. First prior year	1,108,703	(1,832,285)
c. Second prior year	(1,832,285)	904,043
d. Third prior year	904,043	2,112,935
e. Fourth prior year	2,112,935	(7,837,680)
f. Total recognition	$3,455,046	($5,544,284)
8. Actuarial value of assets, end of year		
a. Preliminary actuarial value of assets, end of year: (1) + (4g) + (5d) + (6c) + (7f)	$116,151,164	$106,067,552
b. Upper corridor limit: 120% * (2)	$145,636,013	$130,711,832
c. Lower corridor limit: 80% * (2)	$97,090,675	$87,141,222
d. Actuarial value of assets, end of year	$116,151,164	$106,067,552
9. Difference between market and actuarial value of assets	$5,212,180	$2,858,975
10. Actuarial rate of return	11.51%	2.09%
11. Market rate of return*	13.53%	14.05%
12. Ratio of actuarial value to market value of assets	95.71%	97.38%

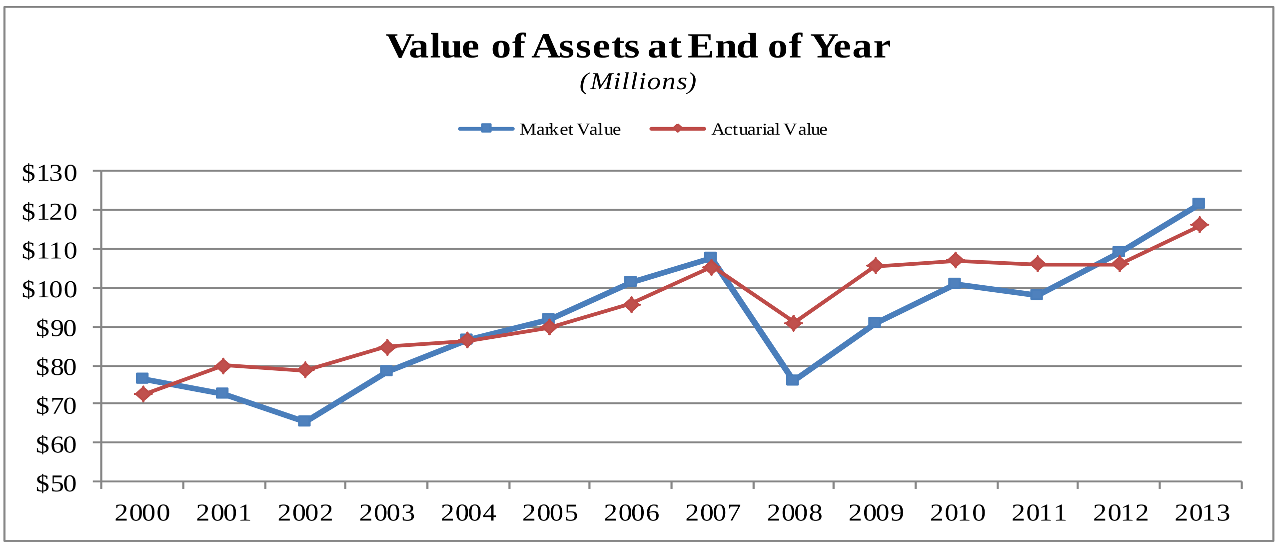
* Current year market rate of return is based on unaudited data and is supplied by NEPC, LLC.

** The interest accrual of 8.00% is used for the period January 1, 2013 through December 31, 2013. Effective January 1, 2014, the assumed interest rate is 7.75%.

History of Investment Returns

Plan Year (1)	Market Value (2)	Actuarial Value (3)
2000	-0.99%	16.23%
2001	-4.47%	10.43%
2002	-9.29%	-1.37%
2003	21.00%	8.51%
2004	11.54%	2.96%
2005	8.22%	5.29%
2006	12.63%	8.61%
2007	7.44%	11.37%
2008	-29.63%	-12.72%
2009	23.72%	17.76%
2010	13.80%	2.87%
2011	-0.90%	1.13%
2012	14.05%	2.09%
2013	13.53%	11.51%
Average returns:		
Last five years:	12.56%	6.88%
Last ten years:	6.38%	4.79%

The market rates above were provided by NEPC, LLC, including changes to the 2010 and 2012 rates since the prior valuation. The actuarial rates above are based on the financial information provided by McGee, Hearne & Paiz, LLP.



Solvency Test

Valuation Date January 1	Total Active Member Contributions (1)	Inactive and Pensioner Liability (2)	Employer Financed Active Accrued Liability (3)	Actuarial Value of Assets	Percentage of Liabilities Covered by Assets (1)	(2)	(3)
2005	$19,498,000	$53,707,000	$23,084,000	$86,375,460	100%	100%	57.1%
2006	19,073,000	60,558,000	21,280,000	89,777,109	100%	100%	47.7%
2007	19,825,000	62,684,000	24,394,000	95,795,184	100%	100%	54.5%
2008	22,176,000	65,310,000	30,571,000	105,311,086	100%	100%	58.3%
2009	24,238,540	61,036,800	26,347,750	90,924,417	100%	100%	21.4%
2010	25,781,876	64,603,564	30,513,788	105,617,373	100%	100%	49.9%
2011	26,324,324	71,634,810	29,328,720	106,999,456	100%	100%	30.8%
2012	27,073,115	77,422,955	28,944,716	106,117,895	100%	100%	5.6%
2013	29,760,034	79,144,343	28,676,259	106,067,552	100%	96%	0.0%
2014	31,223,741	87,447,473	31,318,179	116,151,164	100%	97%	0.0%

Effective January 1, 2010, liabilities are calculated assuming no future cost-of-living increases.

Schedule of Funding Progress

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Valuation Date January 1	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) [(3) - (2)]	Funded Ratio [(2)/(3)]	Covered Payroll	UAAL as a Percentage of Covered Payroll [(4)/(6)]
2001	$72,593,991	$65,605,100	($6,988,891)	110.65%	$10,917,600	-64.01%
2002	79,951,846	79,121,700	(830,146)	101.05%	12,811,600	-6.48%
2003	78,718,418	84,016,000	5,297,582	93.69%	13,633,500	38.86%
2004	84,718,036	89,981,600	5,263,564	94.15%	14,244,400	36.95%
2005	86,375,460	96,288,800	9,913,340	89.70%	14,647,900	67.68%
2006	89,777,109	104,440,300	14,663,191	85.96%	15,527,800	94.43%
2007	95,795,184	115,259,800	19,464,616	83.11%	17,273,900	112.68%
2008	105,311,086	126,147,600	20,836,514	83.48%	20,053,800	103.90%
2009	90,924,417	138,979,800	48,055,383	65.42%	22,865,300	210.17%
2010	105,617,373	120,899,200	15,281,827	87.36%	23,393,277	65.33%
2011	106,999,456	127,287,900	20,288,444	84.06%	23,744,551	85.44%
2012	106,117,895	133,440,800	27,322,905	79.52%	24,389,987	112.03%
2013	106,067,552	137,580,636	31,513,084	77.09%	24,424,919	129.02%
2014	116,151,164	149,989,392	33,838,229	77.44%	22,744,938	148.77%

Effective January 1, 2010, liabilities are calculated assuming no future cost-of-living increases.

Schedule of Contributions from the Employer(s) and Other Contributing Entities

(1)	(2)	(3)	(4)	(5)	(6)
Fiscal Year Ending December 31	GASB No. 25 Annual Required Contribution (ARC) % of Payroll	GASB No. 25 Annual Required Contribution (ARC) Amount	Employer Contributions* % of Payroll	Employer Contributions* Amount	Percentage of GASB ARC Contributed [(5)/(3)]
2003	11.95%	$1,629,200	12.81%	$1,746,788	107.22%
2004	11.44%	1,725,500	12.26%	1,796,863	110.29%
2005	11.78%	1,806,100	12.27%	1,890,808	109.58%
2006	11.63%	1,758,200	12.18%	2,052,640	113.65%
2007	10.18%	1,956,300	11.88%	2,258,769	128.47%
2008	11.33%	2,273,000	11.26%	2,549,234	112.15%
2009	12.82%	2,932,200	11.62%	2,657,556	90.63%
2010	11.74%	2,749,422	11.53%	2,696,312	98.07%
2011	12.98%	3,082,639	11.79%	2,799,257	90.81%
2012	14.12%	3,443,430	12.20%	2,975,898	86.42%
2013	13.58%	3,316,553	13.73%	3,352,871	101.10%
2014	17.76%	4,037,681	-	-	-

** Includes other funding sources.*
Effective January 1, 2010, ARCs are calculated assuming no future cost-of-living increases.

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Retired Participants	Disableds	Beneficiaries	Participants Due Refunds	Total
Number as of January 1, 2013	**322**	**13**	**204**	**26**	**54**	**24**	**643**
New participants	12	-	-	-	-	2	14
Vested terminations	(8)	8	-	-	-	-	-
Retirements	(7)	-	7	-	-	-	-
Disability	(4)	-	-	4	-	-	-
Deceased with beneficiary	-	-	(1)	-	1	-	-
Deceased without beneficiary	-	-	(4)	-	(1)	-	(5)
Due refunds	(8)	-	-	-	-	8	-
Lump sum payoffs	(5)	-	-	-	-	(2)	(7)
Rehires/return to active	1	(1)	-	-	-	-	-
Certain period expired	-	-	-	-	-	-	-
Reclassifications	-	-	-	-	-	-	-
Data corrections	-	-	-	-	-	-	-
Number as of January 1, 2014	**303**	**20**	**206**	**30**	**54**	**32**	**645**

Demographic Statistics

	January 1		
	2014	**2013**	**Change**
Active Participants			
Number	303	322	-5.9%
Vested	*225*	*225*	
Not vested	*78*	*97*	
Average age (years)	41.91	41.45	1.1%
Average service (years)	11.42	10.87	5.1%
Average entry age (years)	30.49	30.58	-0.3%
Total payroll*	$22,744,938	$24,424,919	-6.9%
Average payroll*	$75,066	$75,854	-1.0%
Total employee contributions with interest	$31,223,741	$29,760,034	4.9%
Average employee contributions with interest	$103,049	$92,422	11.5%
Vested Former Participants			
Number	20	13	53.8%
Average age (years)	46.02	47.45	-3.0%
Total employee contributions with interest	$1,986,375	$1,084,521	83.2%
Average employee contributions with interest	$99,319	$83,425	19.1%
Service Retirees			
Number	206	204	1.0%
Average age (years)	67.36	67.17	0.3%
Total annual benefits	$6,403,771	$6,206,969	3.2%
Average annual benefit	$31,086	$30,426	2.2%
Disability Retirees			
Number	30	26	15.4%
Average age (years)	55.86	56.05	-0.3%
Total annual benefits	$897,255	$731,272	22.7%
Average annual benefit	$29,909	$28,126	6.3%
Beneficiaries			
Number	54	54	0.0%
Average age (years)	72.08	71.28	1.1%
Total annual benefits	$764,677	$753,261	1.5%
Average annual benefit	$14,161	$13,949	1.5%
Participants Due Refunds	32	24	33.3%

* Projected payroll for the upcoming valuation year

Distribution of Male Active Members by Age and by Years of Service

Average Age = 42.04 Average Service = 11.67

Age Last Birthday		Whole Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
20-24	Count	3	-	-	-	-	-	-	3
	Avg. Salary	*	-	-	-	-	-	-	*
25-29	Count	26	6	-	-	-	-	-	32
	Avg. Salary	$55,210	$71,018	-	-	-	-	-	$58,174
30-34	Count	11	27	3	-	-	-	-	41
	Avg. Salary	50,418	72,719	*	-	-	-	-	66,864
35-39	Count	13	15	18	2	-	-	-	48
	Avg. Salary	59,392	74,377	$73,127	*	-	-	-	70,007
40-44	Count	2	17	21	7	1	-	-	48
	Avg. Salary	*	77,645	75,469	$81,865	*	-	-	76,073
45-49	Count	3	7	15	10	14	-	-	49
	Avg. Salary	*	81,293	78,208	77,346	$78,603	-	-	78,111
50-54	Count	2	5	7	3	10	6	-	33
	Avg. Salary	*	77,328	69,985	*	74,032	$90,066	-	76,398
55-59	Count	-	5	2	4	5	2	10	28
	Avg. Salary	-	71,956	*	98,889	80,620	*	$77,193	79,221
60-64	Count	-	1	1	-	-	-	2	4
	Avg. Salary	-	*	*	-	-	-	*	70,383
65-69	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
70 & Over	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
Totals	Count	**60**	**83**	**67**	**26**	**30**	**8**	**12**	**286**
	Avg. Salary	**$55,486**	**$74,746**	**$75,075**	**$81,919**	**$77,450**	**$85,126**	**$74,579**	**$72,002**

Average Salary represents annualized salary earned in 2013 and is not shown for cells representing less than or equal to three participants

Distribution of Female Active Members by Age and by Years of Service

Average Age = 39.59   Average Service = 7.34

Age Last Birthday		Whole Years of Service at Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
20-24	Count	2	-	-	-	-	-	-	2
	Avg. Salary	*	-	-	-	-	-	-	*
25-29	Count	2	-	-	-	-	-	-	2
	Avg. Salary	*	-	-	-	-	-	-	*
30-34	Count	1	1	-	-	-	-	-	2
	Avg. Salary	*	*	-	-	-	-	-	*
35-39	Count	1	2	1	-	-	-	-	4
	Avg. Salary	*	*	*	-	-	-	-	$69,823
40-44	Count	1	1	-	-	-	-	-	2
	Avg. Salary	*	*	-	-	-	-	-	*
45-49	Count	-	2	-	-	-	-	-	2
	Avg. Salary	-	*	-	-	-	-	-	*
50-54	Count	-	-	-	-	-	1	-	1
	Avg. Salary	-	-	-	-	-	*	-	*
55-59	Count	-	-	-	-	1	-	-	1
	Avg. Salary	-	-	-	-	*	-	-	*
60-64	Count	1	-	-	-	-	-	-	1
	Avg. Salary	*	-	-	-	-	-	-	-
65-69	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
70 & Over	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
Totals	Count	**8**	**6**	**1**	**-**	**1**	**1**	**-**	**17**
	Avg. Salary	**$52,094**	**$76,160**	*****	**-**	*****	*****	**-**	**$68,017**

Average Salary represents annualized salary earned in 2013 and is not shown for cells representing less than or equal to three participants

Distribution of Total Active Members by Age and by Years of Service

Average Age = 41.91 Average Service = 11.42

Age Last Birthday		Whole Years of Service at Valuation Date: 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
20-24	Count	5	-	-	-	-	-	-	5
	Avg. Salary	$46,430	-	-	-	-	-	-	$46,430
25-29	Count	28	6	-	-	-	-	-	34
	Avg. Salary	$55,297	$71,018	-	-	-	-	-	58,071
30-34	Count	12	28	3	-	-	-	-	43
	Avg. Salary	52,549	72,661	*	-	-	-	-	67,175
35-39	Count	14	17	19	2	-	-	-	52
	Avg. Salary	59,230	74,665	$72,884	*	-	-	-	69,993
40-44	Count	3	18	21	7	1	-	-	50
	Avg. Salary	*	76,688	75,469	$81,865	*	-	-	75,598
45-49	Count	3	9	15	10	14	-	-	51
	Avg. Salary	*	82,314	78,208	77,346	$78,603	-	-	78,416
50-54	Count	2	5	7	3	10	7	-	34
	Avg. Salary	*	77,328	69,985	*	74,032	$97,150	-	78,258
55-59	Count	-	5	2	4	6	2	10	29
	Avg. Salary	-	71,956	*	98,889	79,585	*	$77,193	79,055
60-64	Count	1	1	1	-	-	-	2	5
	Avg. Salary	*	*	*	-	-	-	*	56,306
65-69	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
70 & Over	Count	-	-	-	-	-	-	-	-
	Avg. Salary	-	-	-	-	-	-	-	-
Totals	Count	**68**	**89**	**68**	**26**	**31**	**9**	**12**	**303**
	Avg. Salary	**$55,087**	**$74,841**	**$74,979**	**$81,919**	**$77,352**	**$91,184**	**$74,579**	**$71,778**

Average Salary represents annualized salary earned in 2013 and is not shown for cells representing less than or equal to three participants

Distribution of Male Deferred Members by Age and by Years of Service

Average Age = 45.76 Average Service = 10.80

Age Last Birthday	Whole Years of Service at Valuation Date: 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	4	-	-	-	-	-	5
40-44	-	-	2	-	-	-	-	2
45-49	-	5	1	1	1	1	-	9
50-54	-	2	-	-	-	-	-	2
55-59	-	-	1	-	-	-	-	1
60-64	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-
70 & Over	-	-	-	-	-	-	-	-
Totals	**-**	**11**	**4**	**1**	**1**	**1**	**-**	**19**

Distribution of Female Deferred Members by Age and by Years of Service

Average Age = 50.82 Average Service = 12.75

Age	Whole Years of Service at Valuation Date							
Last Birthday	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-
50-54	-	-	1	-	-	-	-	1
55-59	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-
70 & Over	-	-	-	-	-	-	-	-
Totals	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**1**

Distribution of Total Deferred Members by Age and by Years of Service

Average Age = 46.02 Average Service = 10.90

Age	Whole Years of Service at Valuation Date							
Last Birthday	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 Plus**	**Totals**
Less than 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	4	-	-	-	-	-	5
40-44	-	-	2	-	-	-	-	2
45-49	-	5	1	1	1	1	-	9
50-54	-	2	1	-	-	-	-	3
55-59	-	-	1	-	-	-	-	1
60-64	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-
70 & Over	-	-	-	-	-	-	-	-
Totals	**-**	**11**	**5**	**1**	**1**	**1**	**-**	**20**

Schedule of Pension Recipients Added to and Removed from Rolls

Fiscal Year Ending December 31	Added to Rolls*		Removed from Rolls		Total		Percent Increase in Annual Pension Benefits	Average Annual Pension Benefit
	Count	Annual Pension Benefits	Count	Annual Pension Benefits	Count	Annual Pension Benefits		
2008	14	$354,334	7	$66,261	250	$5,875,488	5.16%	$23,502
2009	13	505,243	5	117,846	258	6,262,885	6.59%	24,275
2010	15	705,497	5	82,482	268	6,885,900	9.95%	25,694
2011	15	576,180	3	48,554	280	7,413,526	7.66%	26,477
2012	14	442,263	10	164,287	284	7,691,502	3.75%	27,083
2013	12	524,215	6	150,013	290	8,065,703	4.87%	27,813

* Includes cost-of-living increases

Pensioners by Option Code

	Count			Monthly Benefit		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Option Code*						
1	106	3	109	$216,159	$3,846	$220,005
2	109	1	110	329,902	3,739	333,641
3	-	-	-	-	-	-
4	8	1	9	20,125	2,543	22,668
5	8	-	8	32,104	-	32,104
Total	**231**	**5**	**236**	**$598,291**	**$10,128**	**$608,419**
Beneficiaries	**-**	**54**	**54**	**-**	**$63,723**	**$63,723**
Grand Total	**231**	**59**	**290**	**$598,291**	**$73,851**	**$672,142**

* See optional forms of payment in Appendix B.

Pensioners by Amount and Option Code

Males	Option Code					
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under $200	1	-	-	-	-	1
$200-$399	2	2	-	-	-	4
$400-$599	1	1	-	-	-	2
$600-$799	2	3	-	-	-	5
$800-$999	3	-	-	1	-	4
$1,000-$1,499	20	7	-	1	-	28
$1,500-$1,999	25	11	-	2	-	38
$2,000-$2,499	24	17	-	-	-	41
$2,500 & over	28	68	-	4	8	108
Total	**106**	**109**	**-**	**8**	**8**	**231**
Females						
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under $200	-	-	-	-	1	1
$200-$399	-	-	-	-	-	-
$400-$599	1	-	-	-	5	6
$600-$799	1	-	-	-	8	9
$800-$999	-	-	-	-	7	7
$1,000-$1,499	-	-	-	-	23	23
$1,500-$1,999	-	-	-	-	3	3
$2,000-$2,499	-	-	-	-	5	5
$2,500 & over	1	1	-	1	2	5
Total	**3**	**1**	**-**	**1**	**54**	**59**
Males & Females						
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under $200	1	-	-	-	1	2
$200-$399	2	2	-	-	-	4
$400-$599	2	1	-	-	5	8
$600-$799	3	3	-	-	8	14
$800-$999	3	-	-	1	7	11
$1,000-$1,499	20	7	-	1	23	51
$1,500-$1,999	25	11	-	2	3	41
$2,000-$2,499	24	17	-	-	5	46
$2,500 & over	29	69	-	5	10	113
Total	**109**	**110**	**-**	**9**	**62**	**290**

Pensioners by Age and Option Code

Avg. Age Male = 66.1 Avg. Age Female = 70.7 Avg. Age Total = 67.0

Males	Option Code					
Age Last Birthday	1	2	3	4	5	Total
Under 50	5	4	0	0	0	9
50-54	4	8	0	1	1	14
55-59	8	26	0	1	3	38
60-64	13	38	0	4	3	58
65-69	12	24	0	1	1	38
70-74	26	8	0	1	0	35
75-79	16	1	0	0	0	17
80-84	8	0	0	0	0	8
85 & over	14	0	0	0	0	14
Total	**106**	**109**	**0**	**8**	**8**	**231**
Females						
Age Last Birthday	1	2	3	4	5	Total
Under 50	0	0	0	0	2	2
50-54	1	1	0	1	2	5
55-59	1	0	0	0	3	4
60-64	1	0	0	0	7	8
65-69	0	0	0	0	6	6
70-74	0	0	0	0	7	7
75-79	0	0	0	0	11	11
80-84	0	0	0	0	7	7
85 & over	0	0	0	0	9	9
Total	**3**	**1**	**0**	**1**	**54**	**59**
Males & Females						
Age Last Birthday	1	2	3	4	5	Total
Under 50	5	4	0	0	2	11
50-54	5	9	0	2	3	19
55-59	9	26	0	1	6	42
60-64	14	38	0	4	10	66
65-69	12	24	0	1	7	44
70-74	26	8	0	1	7	42
75-79	16	1	0	0	11	28
80-84	8	0	0	0	7	15
85 & over	14	0	0	0	9	23
Total	**109**	**110**	**0**	**9**	**62**	**290**

Pensions Awarded in 2013 by Option Code

Average Age = 55.8

Males & Females	Option Code					
Benefit Amount	**1**	**2**	**3**	**4**	**5**	**Total**
Under $200	0	0	0	0	0	0
$200-$399	0	0	0	0	0	0
$400-$599	0	0	0	0	0	0
$600-$799	0	0	0	0	0	0
$800-$999	0	0	0	0	0	0
$1,000-$1,499	0	1	0	0	0	1
$1,500-$1,999	0	0	0	0	0	0
$2,000-$2,499	0	0	0	0	1	1
$2,500 & over	3	6	0	0	1	10
Total	**3**	**7**	**0**	**0**	**2**	**12**

Males & Females						
Age Last Birthday	**1**	**2**	**3**	**4**	**5**	**Total**
Under 50	1	1	0	0	0	2
50-54	1	4	0	0	0	5
55-59	0	1	0	0	0	1
60-64	1	1	0	0	1	3
65-69	0	0	0	0	0	0
70-74	0	0	0	0	0	0
75-79	0	0	0	0	1	1
80-84	0	0	0	0	0	0
85 & over	0	0	0	0	0	0
Total	**3**	**7**	**0**	**0**	**2**	**12**

Retirees and Disabled Members by Service at Retirement and Years Since Retirement

Average Service at Retirement = 22.7 Average Years Since Retirement = 12.8

Service at Retirement		Years Elapsed Since Retirement 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
Less than 5	Count	2	-	-	1	-	-	2	5
	Avg. Benefit	$1,731	-	-	$994	-	-	$1,215	$1,377
5-9	Count	9	8	5	2	1	2	-	27
	Avg. Benefit	$2,450	$1,362	$1,073	$709	$237	$783	-	$1,538
10-14	Count	5	4	2	-	3	1	-	15
	Avg. Benefit	$3,041	$2,392	$1,409	-	$1,226	$1,054	-	$2,155
15-19	Count	3	10	6	4	-	-	4	27
	Avg. Benefit	$3,175	$2,028	$1,695	$1,338	-	-	$1,118	$1,844
20-24	Count	11	8	13	7	6	5	3	53
	Avg. Benefit	$3,494	$2,821	$1,997	$1,832	$1,863	$1,649	$1,076	$2,310
25-29	Count	10	14	8	9	7	7	1	56
	Avg. Benefit	$4,269	$3,096	$2,830	$2,381	$2,070	$1,999	$1,583	$2,860
30-34	Count	15	8	8	2	3	-	7	43
	Avg. Benefit	$5,144	$3,209	$3,191	$3,592	$2,166	-	$1,833	$3,602
35 & Over	Count	2	5	1	1	1	-	-	10
	Avg. Benefit	$4,302	$4,115	$4,253	$3,896	$3,079	-	-	$4,041
Totals	Count	**57**	**57**	**43**	**26**	**21**	**15**	**17**	**236**
	Avg. Benefit	**$3,809**	**$2,682**	**$2,250**	**$2,042**	**$1,865**	**$1,657**	**$1,444**	**$2,578**

Pensioners by Year of Retirement

January 1, 2014 Total = 236

Year of Retirement	Count	Year of Retirement	Count
Under 1960	-	1987	2
1960	-	1988	3
1961	-	1989	5
1962	-	1990	2
1963	-	1991	5
1964	-	1992	5
1965	-	1993	5
1966	-	1994	-
1967	-	1995	11
1968	-	1996	4
1969	-	1997	3
1970	-	1998	8
1971	-	1999	6
1972	-	2000	7
1973	-	2001	9
1974	-	2002	9
1975	-	2003	12
1976	-	2004	12
1977	2	2005	15
1978	5	2006	16
1979	1	2007	5
1980	1	2008	9
1981	4	2009	10
1982	3	2010	11
1983	1	2011	15
1984	4	2012	11
1985	1	2013	10
1986	4		

APPENDIX A

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the January 1, 2014 actuarial valuation report.

1. Valuation Date

   The valuation date for any given year is January 1st, the first day of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

2. Actuarial Cost Method

   The actuarial valuation uses the Entry Age Normal (EAN) actuarial cost method, amortized as a level percentage of payroll. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) the rate that will amortize the unfunded actuarial accrued liability (UAAL).

   a. The valuation is prepared on the projected benefit basis, under which the present value, at the investment return rate assumed to be earned in the future (currently 7.75%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of participants and beneficiaries.

   b. The employer contributions required to support the benefits of the Fund are determined using a level funding approach, and consist of a normal cost contribution and an accrued liability contribution.

   c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.

d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

3. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income, with interest, dividends, and other income recognized immediately. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses. An adjustment is made if the actuarial value is not within 20% of the Market Value. For any year following a year in which the 20% of market value adjustment was applied, the actuarial value is determined as if the adjustment was not applied in the previous year.

4. Economic Assumptions

a. Investment return

7.75% per year, compounded annually, composed of an assumed 3.25% inflation rate and a 4.50% net real rate of return. This rate represents the assumed return, net of investment expenses.

b. Salary increase rate

Age	Rate
20	8.00%
25	8.00%
30	8.00%
35	8.00%
40	7.50%
45	7.25%
50	7.00%
55	5.00%
60	4.75%

c. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 4.25% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

5. Demographic Assumptions

a. Rates Before Retirement

Healthy Pre-Retirement Mortality:
RP-2000 Combined Mortality Table, fully generational, projected with Scale BB
Males: Set back 4 years with a multiplier of 104%
Females: Set back 3 years with a multiplier of 90%
Healthy Post-Retirement Mortality:
RP-2000 Combined Mortality Table, fully generational, projected with Scale BB
Males: No set back with a multiplier of 104%
Females: Set forward 1 year with a multiplier of 90%
Disabled Mortality:
RP-2000 Disabled Mortality Table, fully generational, projected with Scale BB
Males: Set forward 5 years with a multiplier of 120%
Females: Set forward 5 years with a multiplier of 120%

	Pre-Retirement		Post-Retirement		Disabled	
	Projected to 2014 using Scale BB					
Age	Male	Female	Male	Female	Male	Female
20	0.03%	0.02%	0.03%	0.02%	2.60%	0.86%
25	0.04%	0.02%	0.04%	0.02%	2.60%	0.86%
30	0.04%	0.02%	0.04%	0.03%	2.60%	0.86%
35	0.05%	0.03%	0.08%	0.04%	2.60%	0.86%
40	0.08%	0.05%	0.11%	0.07%	2.60%	0.86%
45	0.11%	0.07%	0.15%	0.11%	3.33%	1.33%
50	0.16%	0.11%	0.21%	0.16%	4.08%	1.85%
55	0.24%	0.17%	0.36%	0.26%	4.57%	2.28%
60	0.42%	0.28%	0.64%	0.45%	5.08%	2.84%
65	0.71%	0.51%	1.12%	0.83%	6.08%	3.81%
70	1.25%	0.92%	1.87%	1.41%	7.97%	5.29%
75			3.18%	2.35%	10.62%	7.33%
80			5.42%	3.86%	13.75%	10.15%
85			9.32%	6.56%	18.85%	14.39%
90			16.34%	11.31%	29.51%	21.46%
95			25.57%	17.23%	39.64%	27.32%
100			34.36%	21.43%	47.75%	35.17%

100% of active deaths are assumed to be duty-related

b. Disability and Withdrawal

Age	Disability		Withdrawal Ultimate	
	Male	Female	Male	Female
20	0.10%	0.10%	11.00%	11.00%
25	0.10%	0.10%	10.00%	10.00%
30	0.23%	0.23%	5.00%	5.00%
35	0.39%	0.39%	4.00%	4.00%
40	0.57%	0.57%	3.50%	3.50%
45	0.73%	0.73%	2.50%	2.50%
50	0.75%	0.75%	2.00%	2.00%
55	0.75%	0.75%	1.00%	1.00%
60	0.75%	0.75%	0.50%	0.50%

100% of active disabilities are assumed to be duty-related

c. Retirement Rates

Age	Rate	Age	Rate
50	15%	56	10%
51	10%	57	15%
52	10%	58	20%
53	10%	59	20%
54	10%	60	40%
55	10%	61	40%
		62	100%

6. Other Assumptions

a. Percent married: 85.00% of employees are assumed to be married. (No beneficiaries other than the spouse assumed.)

b. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.

c. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity.

d. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.

e. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available, which for this plan is age 50.

f. No benefit data is available for members entitled to deferred benefits. The present value of benefits expected to be paid to vested inactive non-retired members is approximated using the data provided.

g. There will be no recoveries once disabled.

h. Administrative expenses: Average of actual expenses for the prior two years, with each year projected at 6.50% to the valuation date.

i. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported pay represents amount paid to members during the year ended on the valuation date.

j. Decrement timing: Decrements of all types are assumed to occur mid-year.

k. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

l. Incidence of contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in the report, and the actual payroll payable at the time contributions are made.

m. Benefit service: All members are assumed to accrue one year of service each year.

APPENDIX B

SUMMARY OF PLAN PROVISIONS

Summary of Plan Provisions

Covered Members	Any person who is employed by the Wyoming state highway patrol division as a sworn law enforcement officer;
	Any person who is commissioned as a full time law enforcement officer of the Wyoming state game and fish department;
	Any criminal investigator as defined under W.S. 9-3-602(a)(iv);
	Any person designated and appointed as capitol police under W.S. 9-1-612 and qualified pursuant to W.S. 9-1-701 through 9-1-707.
Final Average Salary	Employee's average annual salary for the highest paid three continuous years of service.
Service Retirement	
Eligibility	Age 50 with six or more years of service.
Monthly Benefit	2.50% of employee's highest three-year average salary for each year of credited service, not to exceed 75.0% of final average salary.
Vesting	Any employee who has left employment with six or more years of service, and who has not withdrawn accumulated contributions, is eligible to receive the above benefit or can elect to receive a lump-sum refund of contributions with interest. An employee who terminates with less than six years of service is only eligible for the lump-sum benefit.
Duty Disability Retirement	
Eligibility	No age or service eligibility requirements. Partial or total disability resulting from an individual and specific act, the type of which would normally occur only while employed as an employee, or as otherwise defined under W.S. 9-3-611(a).
Monthly Benefit	62.5% of Final Average Salary.
Non-duty Disability Retirement	
Eligibility	10 years of credited service. Partial or total disability, but not eligible for duty disability.
Monthly Benefit	50.0% of Final Average Salary.

Pre-retirement Duty Death Benefit

Eligibility	No age or service requirements.
Monthly Benefit	50% of member's final actual salary, payable to the surviving spouse plus 5% of the member's final actual salary for each unmarried child under 18. Payment shall not exceed the member's final actual salary.

Pre-retirement Non-duty Death Benefit

Eligibility	No age or service requirements.
Monthly Benefit	2% for each year of credited service, not to exceed 50%, of the member's final actual salary payable to the surviving spouse plus 5% of the member's final actual salary for each unmarried child under 18. Payment shall not exceed 60% of the member's final actual salary.

Post-retirement Death Benefit

Monthly Benefit	50% of the benefit payable prior to the member's death plus 5% of the member's final actual salary for each unmarried child under 18. Payment shall not exceed 60% of the member's final actual salary.

Contributions

Employee	13.54% of salary. The employer may subsidize all or part of the employee contributions. Effective July 1, 2014, the employee contribution rate increases to 14.56% of salary. The Employer may subsidize all except 1.62% of the employee contributions, which shall be paid through salary reductions.
Employer	12.96% of salary. Effective July 1, 2014, the employer contribution rate increases to 13.86% of salary and will increase again to 14.88% effective July 1, 2015.
Interest	5.50% annually.

Cost-of-Living Improvements W.S. 9-3-454 prohibits benefit changes, including cost-of-living increases, unless the funded ratio stays above 100% plus a margin for adverse experience throughout the life of the benefit change.

Optional Forms of Payment

Option 1 (normal form)	Monthly benefit for life. Upon death, 50% of the benefit continues to be paid to the beneficiary.
Option 2	Monthly benefit for life. Upon death, 100% of the benefit continues to be paid to the beneficiary.
Option 3	Not available under this plan.
Option 4	Monthly benefit for life with a guarantee of 120 monthly payments
Option 5	The largest possible monthly benefit payable for life with no lump-sum death benefit.